PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Mail Stop Patent Application **Commissioner for Patents** P.O. Box 1450 Alexandria, VA 22313-1450

NEW APPLICATION TRANSMITTAL

Transmitted herewith for filing is the patent application of

Inventor(s): Hideki TSUCHIDA, Masaru KUSAKA and Shinjiro HAYASHI

WARNING: 37 CFR 1.41(a)(1) points out:

"(a) A patent is applied for in the name or names of the actual inventor or inventors.

(1) The inventorship of a nonprovisional application is that inventorship set forth in the oath or declaration as prescribed by § 1.63, except as provided for in § 1.53(d)(4) and § 1.63(d). If an oath or declaration as prescribed by § 1.63 is not filed during the pendency of a nonprovisional application, the inventorship is that inventorship set forth in the application papers filed pursuant to § 1.53(b), unless a petition under this paragraph accompanied by the fee set forth in § 1.17(i) is filed supplying or changing the name or names of the inventor or inventors."

For (title): A PROCESS FOR COPPER ELECTROPLATING

CERTIFICATION UNDER 37 C.F.R. 1.10*

(Express Mail label number is mandatory.) (Express Mail certification is optional.)

I hereby certify that this correspondence and the documents referred to as attached therein are being deposited with the United States Postal Service on this date November 26, 2003, in an envelope as "Express Mail Post Office to Addressee," mailing Label Number EV342619005US , addressed to the: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Deanna M. Rivernider

(type or print name of person mailing paper)

Signature of person mailing paper

WARNING:

Certificate of mailing (first class) or facsimile transmission procedures of 37 C.F.R. 1.8 cannot be used to

obtain a date of mailing or transmission for this correspondence.

*WARNING:

Each paper or fee filed by "Express Mail" must have the number of the "Express Mail" mailing label

placed thereon prior to mailing. 37 C.F.R. 1.10(b).

"Since the filing of correspondence under § 1.10 without the Express Mail mailing label thereon is an oversight that can be avoided by the exercise of reasonable care, requests for waiver of this requirement will

not be granted on petition." Notice of Oct. 24, 1996, 60 Fed. Reg. 56,439, at 56,442.

Type of Application 1.

This new application is for a(n)

(check one applicable item below)

	[X]	Original (nonprovisional)					
	[]	Design					
	[]	Plant					
WARNING:		Do not use this transmittal for a completion in the U.S. of an International Application under 35 U.S.C. 371(c)(4), unless the International Application is being filed as a divisional, continuation or continuation-inpart application.					
WARNI	NG:	Do not use this transmittal for the filing of a provisional application.					
NOTE:	TRANSM	the following 3 items apply, then complete and attach ADDED PAGES FOR NEW APPLICATION IITTAL WHERE BENEFIT OF A PRIOR U.S. APPLICATION CLAIMED and a NOTIFICATION IN PARENT ATION OF THE FILING OF THIS CONTINUATION APPLICATION.					
	[]	Divisional.					
	[]	Continuation.					
	[]	Continuation-in-part (C-I-P).					
2.	Benefit	t of Prior U.S. Application(s) (35 U.S.C. 119(e), 120, or 121)					

NOTE: A nonprovisional application may claim an invention disclosed in one or more prior filed copending nonprovisional applications or copending international applications designating the United States of America. In order for a nonprovisional application to claim the benefit of a prior filed copending nonprovisional application or copending international application designating the United States of America, each prior application must name as an inventor at least one inventor named in the later filed nonprovisional application and disclose the named inventor's invention claimed in at least one claim of the later filed nonprovisional application in the manner provided by the first paragraph of 35 U.S.C. 112. Each prior application must also be:

- (i) An international application entitled to a filing date in accordance with PCT Article 11 and designating the United States of America; or
- (ii) Complete as set forth in § 1.51(b); or
- (iii) Entitled to a filing date as set forth in § 1.53(b) or § 1.53(d) and include the basic filing fee set forth in § 1.16; or
- (iv) Entitled to a filing date as set forth in § 1.53(b) and have paid therein the processing and retention fee set forth in § 1.21(l) within the time period set forth in § 1.53(f).

37 CFR 1.78(a)(1).

If the new application being transmitted is a divisional, continuation or a continuation-in-part of a parent case, or **NOTE** where the parent case is an International Application which designated the U.S., or benefit of a prior provisional application is claimed, then check the following item and complete and attach ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.

WARNING: If an application claims the benefit of the filing date of an earlier filed application under 35 U.S.C. 120, 121 or 365(c), the 20-year term of that application will be based upon the filing date of the earliest U.S. application that the application makes reference to under 35 U.S.C. 120, 121 or 365(c). (35 U.S.C. 154(a)(2) does not take into account, for the determination of the patent term, any application on which priority is claimed under 35 U.S.C. 119, 365(a) or 365(b).) For a c-i-p application, applicant should review whether any claim in the patent that will issue is supported by an earlier application and, if not, the applicant should consider canceling the reference to the earlier filed application. The term of a patent is not based on a claim-by-claim approach. See Notice of April 14, 1995, 60 Fed. Reg. 20,195, at 20,205. **WARNING:** When the last day of pendency of a provisional application falls on a Saturday, Sunday, or Federal holiday within the District of Columbia, any nonprovisional application claiming benefit of the provisional application must be filed prior to the Saturday, Sunday, or Federal holiday within the District of Columbia. See 37 C.F.R. § 1.78(a)(3). The new application being transmitted claims the benefit of prior U.S. application(s). [] Enclosed are ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED. Papers Enclosed 3. A. Required for Filing Date under 37 C.F.R. 1.53(b) (Regular) or 37 C.F.R. 1.153 (Design) Application Pages of Specification Pages of Claims Sheets of Drawing Formal [] Informal B. Other Papers Enclosed 1 Pages of Abstract Other **WARNING:** DO NOT submit original drawings. A high quality copy of the drawings should be supplied when filing a patent application. The drawings that are submitted to the Office must be on strong, white, smooth, and nonshiny paper and meet the standards according to § 1.84. If corrections to the drawings are necessary, they should be made to the original drawing and a high-quality copy of the corrected original drawing then submitted to the Office. Only one copy is required or desired. For comments on proposed then-new 37 C.F.R. 1.84, see Notice of March 9, 1988 . . . (1990 O.G. 57-62). NOTE: "Identifying indicia, if provided, should include the application number or the title of the invention, inventor's name, docket number (if any), and the name and telephone number of a person to call if the Office is unable to match the drawings to the proper application. This information should be placed on the back of each sheet of drawing a minimum distance of 1.5 cm. (5/8 inch) down from the top of the page." 37 C.F.R. 1.84(c)). (complete the following, if applicable) [] The enclosed drawing(s) are photograph(s), and there is also attached a "PETITION TO ACCEPT PHOTOGRAPH(S) AS DRAWING(S)." 37 C.F.R. 1.84(b).

4.	Auuit	Additional Papers Enclosed							
		Inform Form Citation Declar Submit pertain sequent Autho	ration of Biological Deposit ission of "Sequence Listing," computer readable copy and/or amendment ning thereto for biotechnology invention containing nucleotide and/or amino acid nce. orization of Attorney(s) to Accept and Follow Instructions from Representative al Comments						
5.	Decla	ration o	r Oath						
NOTE:	nonprov the inve executed is submi inventor that dec under §	visional a ntors nan d declarat itted. The rs of the a laration r 1.47 has	declaration is not required in a continuation or divisional application provided the prior pplication contained a declaration as required, the application being filed is by all or fewer than all ned in the prior application, there is no new matter in the application being filed, and a copy of the tion filed in the prior application (showing the signature or an indication thereon that it was signed) copy must be accompanied by a statement requesting deletion of the names of person(s) who are not application being filed. If the declaration in the prior application was filed under § 1.47 then a copy of the filed accompanied by a copy of the decision granting § 1.47 status or, if a nonsigning person subsequently joined in a prior application, then a copy of the subsequently executed declaration must FR 1.63(d).						
NOTE:	identify together	each inve with any	ed to complete an application must be executed, identify the specification to which it is directed, entor by full name, including the family name, and at least one given name without abbreviation to other given name or initial, and the residence, post office address and country of citizenship of each whether the inventor is a sole or joint inventor. 37 CFR 1.63(a)(1)-(4).						
	[]	Enclo	sed						
		Execu	(check all applicable boxes) inventor(s). legal representative of inventor(s). 37 CFR 1.42 or 1.43. joint inventor or person showing a proprietary interest on behalf of inventor who refused to sign or cannot be reached. [] This is the petition required by 37 CFR 1.47 and the statement required by 37 CFR 1.47 is also attached. See item 13 below for fee.						
	[X]	Not E	nclosed.						
NOTE:	applicat	ion conta ation or c	is a completion in the U.S. of an International Application, or where the completion of the U.S. tins subject matter in addition to the International Application, the application may be treated as a continuation-in-part, as the case may be, utilizing ADDED PAGE FOR NEW APPLICATION WHERE BENEFIT OF PRIOR U.S. APPLICATION CLAIMED.						
		[]	Application is made by a person authorized under 37 C.F.R. 1.41(c) on behalf of all the above named inventor(s).						

(T)	ie declard	ation or oath	, along with the surcharge required by 37 CFR 1.16(e), can be filed subsequently).	
NOTE:	It is impe	ortant that all	the correct inventor(s) are named for filing under 37 CFR 1.41(c) and 1.53(b).	
]	Showing that the filing is authorized. (not required unless called into question. 37 CFR 1.41(d))	
6.	Invent	orship Sta	tement	
WARNI	NG:	•	inventors are each not the inventors of all the claims an explanation, including the ownership is claims at the time the last claimed invention was made, should be submitted.	
The in	ventorsh	ip for all th	e claims in this application are:	
	[]	The same.		
	[]	the last cla	me. An explanation, including the ownership of the various claims at the time aimed invention was made, submitted. ill be submitted.	
7.	Langu	age		
NOTE: An application including a signed oath or declaration may be filed in a language other than English translation of the non-English language application and the processing fee of \$130.00 required by 3 required to be filed with the application, or within such time as may be set by the Office. 37 CFR 1.5				
	[X] []	English Non-Engl	ish	
			he attached translation includes a statement that the translation is accurate. 37 F.R. 1.52(d).	
8.	Assign	ment		
	[X]	_	ment of the invention to Shipley Company, L.L.C. of arlborough, Massachusetts	
		M	attached. A separate [] "COVER SHEET FOR ASSIGNMENT (DOCU- ENT) ACCOMPANYING NEW PATENT APPLICATION" or [] FORM TO 1595 is also attached.	
		[] w	as filed in the parent application ill follow.	
NOTE:			abmitted with a new application, send two separate letters-one for the application and one for e of May 4, 1990 (1114 O.G. 77-78).	
WARNI	NG:		cuted "STATEMENT UNDER 37 CFR 3.73(b)" must be filed when a continuation-in-part is filed by an assignee. Notice of April 30, 1993, 1150 O.G. 62-64.	

Q	Certified	Conv
7.	Cumu	COP

Certified copy(ies) of application(s)

Country	Appln. No.	Filed	
•	2002 245420	11/20/2002	
Japan	2002-345430	11/28/2002	

from which priority is claimed

[]	is enclosed.
[]	was filed.
[X]	will follow.

NOTE: The foreign application forming the basis for the claim for priority must be referred to in the oath or declaration. 37 CFR 1.55(a) and 1.63.

NOTE: This item is for any foreign priority for which the application being filed directly relates. If any parent U.S. application or International Application from which this application claims benefit under 35 U.S.C. 120 is itself entitled to priority from a prior foreign application, then complete item 18 on the ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.

10. Fee Calculation (37 C.F.R. 1.16)

A. [X] Regular application

CLAIMS AS F	ILED				
Claims	Number Filed	Basic Fee Allowance	Number Extra	Rate	Basic Fee 37 C.F.R. 1.16(a) \$770.00
Total Claims (37 CFR 1.16(c))	8	- 20 =	0	x \$ 18.00	\$0
Independent Claims (37 CFR 1.16(b))	2	- 3 =	0	x \$86.00	\$0
Multiple Dependent Claim(s), if any (37 CFR 1.16(d))			+	\$290.00	\$0

[]	Amendment canceling extra claims is enclosed.
[]	Amendment deleting multiple-dependencies is enclosed
[]	Fee for extra claims is not being paid at this time.

NOTE: If the fees for extra claims are not paid on filing they must be paid or the claims cancelled by amendment, prior to the expiration of the time period set for response by the Patent and Trademark Office in any notice of fee deficiency. 37 CFR 1.16(d).

Filing Fee Calculation	\$	770.00
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	В.	[]	_	applicat 00—37 C		6(f))						
						Filing Fe	e Calcula	ation		\$		
	C.	[]		pplication 00—37 C		6(g)) Filing Fe	e Calcula	ation		\$		
11.	Small	Entity S	Statemei	nt(s)								
	[]	Stateme attache		at this is	a filin	ng by a sr	nall entity	y unde	r 37 C	FR 1.9	and 1.2	27 is (are)
WARNI.	NG:	"Status as a small entity must be specifically established in each application or patent in which available and desired. Status as a small entity in one application or patent does not affect any of or patent, including applications or patents which are directly or indirectly dependent upon the patent in which the status has been established. The refiling of an application under § 1.53 as a division, or continuation-in-part (including a continued prosecution application under § 1.53(d)), a reissue application requires a new determination as to continued entitlement to small entity continuing or reissue application. A nonprovisional application claiming benefit under 35 U.S. 121, or 365(c) of a prior application, or a reissue application may rely on a statement file application or in the patent if the nonprovisional application or the reissue application includes the statement in the prior application or in the patent or includes a copy of the statement in the prior in the patent and status as a small entity is still proper and desired. The payment of the sm statutory filing fee will be treated as such a reference for purposes of this section." 37 CFR 1.28(d)								t any other pon the ap 1.53 as a c 1.53(d)), or all entity s 35 U.S.C. ment filed includes a in the prior	r application pplication or continuation, or the filing of status for the 119(e), 120, in the prior a reference to r application l entity basic	
				(comp	lete the	following	if applica	able)				
	[]	Status a	as a sma	ll entity v		med in prio			med for	this an	————	, filed
		35 U.S.	.C. §	[]	119(e), 120, 121,	,		ng olum	ned for	uno up	priodition	r under:
		and wh	vich statu	[]	365(c),	ty is still p	oner and	desired	1			
		and wit	ion statu	15 05 0 5111	an Chui	y is still p	oper and	desiree	.			
		[] Filing I				t in the price A, B or C			include \$	d.		
NOTE:	Any exce months of	ess of the j the date o	full fee pa of timely pa	iid will be ayment of a	refunded full fee. T	if a small e The two-mon	ntity status th period is	is estab not exter	lished re ndable ur	fund req ader§1	uest are fi 136. 37 Cl	îled within 2 FR 1.28(a).
12.	Reques	st for In	ternatio	nal-Type		h (37 C.F.) lete, if app	•	d))				
	[]					-type sear rits takes p	_	for th	is appl	ication	at the t	time when

13.	Fee Payment Being Made at This Time									
	[]	Not Enclosed								
		[]	[] No filing fee is to be paid at this time. (This and the surcharge required by 37 C.F.R. 1.16(e) can be paid subsequently.)							
	[X]	Enclosed								
		[X]	Filing fee	\$_	770.00					
		[]	Recording assignment (\$40.00; 37 C.F.R. 1.21(h)) (See attached "COVER SHEET FOR ASSIGNMENT ACCOMPANYING NEW APPLICATION.")	\$_						
		[]	Petition fee for filing by other than all the inventors or person on behalf of the inventor where inventor refused to sign or cannot be reached (\$130.00; 37 C.F.R. 1.47 and 1.17(i))	\$_						
		[]	For processing an application with a specification in a non-English language (\$130.00; 37 C.F.R. 1.52(d) and 1.17(k))	\$_						
		[]	Processing and retention fee (\$130.00; 37 C.F.R. 1.53(d) and 1.21(l))	\$_						
		[]	Fee for international-type search report (\$40.00; 37 C.F.R. 1.21(e))	\$_						
applicat order to		on pursual obtain the	ablishes a fee for processing and retaining any application that is all nt to 37 CFR 1.53(f) and this, as well as the changes to 37 CFR 1 e benefit of a prior U.S. application, either the basic filing fee m 21(l) must be paid, within 1 year from notification under § 53(f).	.53 and	1.78(a)(1), indicat	e that in				
		-	Total Fees Enclosed	\$_	770.00					
14.	Metho	d of Pay	ment of Fees							
	[X]	Check	in the amount of \$ <u>770.00</u>							
	[]	Charge A dupl	Account No in the amount of \$icate of this transmittal is attached.	.						
15.	Author	rization	to Charge Additional Fees							
WARNI	NG:	If no fees	s are to be paid on filing, the following items should <u>not</u> be complete	d.						
WARNI	NG:		ely count claims, especially multiple dependent claims, to avoid une. are authorized.	xpected	high charges, if ext	ra claim				
	[X]		ommissioner is hereby authorized to charge the folloand during the entire pendency of this application to Acc	_		by this				

		[X] [X]	37 C.F.R. 1.10 37 C.F.R. 1.10				of extra cla	ims)		
NOTE:	paid or to notice of	hese claims fee deficier	fees for excess or scancelled by ame ncy (37 CFR 1.16(ng with amendmen	ndment prio (d)), it might	r to the expi be best not t	ration of the	time period s	set for respo	nse by the PTO in	any
		[X] [X] [X]	37 C.F.R. 1.1 date later than 37 CFR 1.17(37 C.F.R. 1.17	the filing $a)(1)-(5)$	date of the extension	e applicati fees pursu	on)		or declaration o	n a
NOTE:	requiring extension required reply req forth in §	g a petition of time for extension of uiring a pe \$ 1.17(a) wi	may be submitted for an extension of r the appropriate to of time fees will be etition for an exten ill also be treated of sion of time under	of time under length of tim treated as a sion of time as a construc	this paragro e. An author constructive under this po ctive petition	uph for its tir ization to ch petition for uragraph for for an exten	nely submissi arge all requ an extension its timely su sion of time i	on, as incor sired fees, fe of time in ar bmission. Su n any concu	porating a petition es under § 1.17, o ny concurrent or fu nbmission of the fe rrent reply requiri	n for or all uture ee set
		[]	37 C.F.R. 1.1 37 C.F.R. 1.3		e at or bef	ore mailir	ng of Notic	e of Allov	wance, pursuan	ıt to
NOTE:	Allowand		ation to charge the fee will be autom							
NOTE:	filed in th notificati	he applicati on of chang	quires "Notificatio ion prior to pa ge of status must b ge is to another sm	ying, or at th e made even	ie time of pay	ving, issue	fee." From t	he wording	of 37 CFR 1.28(b)), (a)
16.	Instru	ctions as	to Overpaym	ent						
NOTE:	will the p	oayer be no	venty-five dollars o otified of such amo ccount.'' 37 CFR	unts; amoun						
	[X]	Credit A	Account No	04-110	<u>5</u> .					
	[]	Refund			SIGNAT	URE OF	PRACTIT	TIONER		-
Reg. 1	No. 33,8	360				Corless f				

Tel. No.: (617) 439-4444

Customer No.:

S. Matthew Cairns (508)229-7545

S. Matthew Cairns (Reg. No. 42,378)

EDWARDS & ANGELL, LLP

P.O. Box 9169 P.O. Address

Boston, MA 02209

[]	Incorporation by reference of added pages (check the following item if the application in this transmittal claims the benefit of prior U.S. application(s) (including an international application entering the U.S. stage as a continuation, divisional or C-I-P application) and complete and attach the ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED)	
	[]	Plus Added Pages for Papers Referred to in Item 4 Above Number of pages added
	[]	Plus added pages deleting names of inventor(s) named on prior application(s) who is/are no longer inventor(s) of the subject matter claimed in this application. Number of pages added
	[]	Plus "Assignment Cover Letter Accompanying New Application" Number of pages added
[X]	Statement Where No Further Pages Added	
		further pages form a part of this Transmittal, then end this Transmittal with this page and the following item)
	[X]	This transmittal ends with this page.